

Rationale Sheet  
State of Tennessee  
State Operating Permit for the  
Application of Systemic Herbicides

Outline -

I.	Background .....	1
II.	Description of activities.....	1
III.	Present permit conditions .....	2
IV.	Proposed terms and conditions.....	2
V.	Monitoring Requirements.....	2
VI.	Notification requirements and authorization to discharge.....	2
VII.	Antidegradation .....	3
VIII.	Permit issuance procedures .....	4

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## **I. Background**

Activities considered in this rationale sheet are application of aquatic systemic herbicides to the waters of the state contained within federal and state managed impoundments and lakes. Tennessee's Water Quality Control Act (TWQCA) requires that the application of herbicides to the waters of the State of Tennessee be permitted by the Department of Environment and Conservation (TDEC).

Permit requirements for application of aquatic systemic herbicides are expected to be similar across the state, regardless of the exact location of herbicide application within federal and state managed impoundments and lakes. Therefore, it is the opinion of the Division of Water Pollution Control (division) that this activity can be controlled more appropriately, and more effectively under a general State Operating Permit (SOP) than under individual NPDES permits.

This rationale sheet describes proposed terms and gives the basis for permit conditions to be applied statewide to the application of aquatic systemic herbicides to waters of the state.

## **II. Description of activities**

This is a rationale for the general SOP that authorizes owner/applicator to apply systemic herbicides for control of aquatic macrophytes to waters of the state, provided the activities are in compliance with the terms of this permit. The application of pesticides is limited to waters of the state that are contained within federal and state managed impoundments and lakes, rather than free-flowing waters, such as creeks, streams, and rivers.

Applicability of this general permit is only for systemic herbicides. Systemic herbicides and/or copper-based herbicides/boosters. Systemic herbicides shall be limited to those registered systemic herbicides approved for application in water used as domestic water supply. In addition, the owner/applicator must follow all label requirements. The application of systemic herbicides shall be done only by persons licensed by the Tennessee Department of Agriculture (TDA) and must meet all applicable regulations of the TDA. The application of herbicides is limited to an effective plant control zone. The effective plant control zone shall be within one hundred (100) feet of fixed piers, docks, boathouses, public use boat ramps, public facilities, and industrial water intakes. Boat lanes shall be limited to a single lane not to exceed fifty (50) feet in width. Under no circumstances may the area to be treated exceed ten (10) acres.

### **III. Present permit conditions**

The division previously issued individual NPDES permits for the application of systemic herbicides to certain waters of the state. Only nine individual permits for application of systemic herbicides have been issued since July 9, 2003. Those permits contained various herbicide application and applicator certification requirements.

### **IV. Proposed terms and conditions**

The division recognizes that if label requirements and terms and conditions of this permit are not followed, application of herbicides could cause secondary environmental impacts, temporary exceedance of water quality criteria, and partially and temporarily impair designated uses of a receiving waterbody. However, at a same time, presence of non-native, exotic, or nuisance vegetative species can cause permanent degradation, and make waters of the state unsuitable for one or more of their designated uses. Application of herbicides causes destruction of targeted aquatic vegetation, with an intent to eradicate noxious weeds. Our goal was to achieve a balanced approach that will improve water quality on a long-term basis, without causing permanent degradation to the waters of the state. The terms, conditions, limitations, monitoring requirements and management plans proposed in this General SOP are summarized below:

- compliance with Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) is required;
- application of herbicides must be performed only by persons licensed by the TDA;
- only herbicides that are on the TDA's list of registered herbicides can be used;
- the applicator must follow all label requirements;
- herbicides must be applied directly to target nuisance vegetation in or on the water;
- herbicide application is limited to the effective plant control zone\*; and
- temporary water quality impacts should be minimized.

\* The effective plant control zone shall be within 100 feet of fixed piers, docks, boathouses, public use boat ramps, public facilities, and industrial water intakes. Boat lanes shall be limited to a single lane not to exceed 50 feet in width. Under no circumstances may the area to be treated exceed 10 acres.

The permit requires site inspections prior to application of systemic herbicides and a prior notification of treatment. The permit also requires that the permittee become aware of any water use restrictions and that the permittee contact potentially affected persons prior to herbicide application.

### **V. Monitoring Requirements**

The permit requires that the application of herbicides shall be monitored by the permittee so as to document the area of application, the average water depth, the amount of herbicide applied and the type of herbicide used.

### **VI. Notification requirements and authorization to discharge**

#### **A. Permit coverage and limitations of coverage**

This permit is applicable for waters of the State of Tennessee that are contained within federal and state managed impoundments and lakes. Limitations of coverage include application of:

- systemic herbicides currently covered under an individual NPDES permit;
- systemic herbicides to waters that are designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRWs) or that are identified by TDEC as high quality waters;
- systemic herbicides or application-related activities that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered

Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA;

- systemic herbicides or application-related activities that are likely to have adverse impact to cultural, historical, or archeological features or sites;
- systemic herbicides or application-related activities that would cause or contribute to permanent in-stream exceedances of water quality standards;
- systemic herbicides or application-related activities in a segment of waters that has been determined by the division to be impaired waters, or upstream of such waters and because of the proximity to the impaired segment and the nature of the discharge is likely to contribute pollutant(s) of concern in amounts measurable in the impaired segment; and
- systemic herbicides or application-related activities that do not comply with the division's anti-degradation policy for water quality standards.

#### A. Notice of Intent Requirements

The Notice of Intent (NOI) to request coverage under this permit shall be submitted on the form presented in Appendix A-1 of the permit. The owner/applicator shall submit a copy of the NOI at least 30 days prior to the beginning of the application of herbicides. This NOI must be signed by either a responsible corporate official, a general partner or the proprietor, or by a principal executive officer or ranking elected official.

#### A. Authorization to discharge

We propose to administer the issuance of permits to facilities covered under this general permit according to the following procedures.

- (1) A completed and signed NOI shall be submitted to the Nashville Central Office 30 days before the application of systemic herbicides to the waters of the state.
- (2) The Notice of Coverage (NOC) under this permit will be issued after the division receives a complete and accurate NOI. The NOC will specify the effective dates of coverage under the permit. The NOC issued to a specific herbicide application will be assigned a number. The NOC will be mailed to the applicant. A copy will be retained by the division, and a copy will be forwarded to the appropriate EAC.
- (3) The Permit Section will notify the division's Enforcement and Compliance Section of the proposed application of systemic herbicides and any necessary information needed by that section.

### **VII. Antidegradation**

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06. This statement outlines the criteria for the two types of high quality waters. Outstanding National Resource Waters (ONRWs), as designated by the Water Quality Control Board, are commonly referred to as Tier 3 waters. Other high quality waters, as identified by the division, are commonly referred to as Tier 2 waters. Other surface waters not specifically identified and/or designated as high quality are referred to as Tier 1 waters. Some other tiered waters may be identified by the division as not meeting existing criteria and appear on a list of impaired waters per Section 303(d) of the CWA.

The application of aquatic herbicide, when used according to label instructions, will not degrade and may restore the waters of the state to their designated usage. The application of herbicide destroys the unwanted vegetation without causing permanent, or long term, damage to the water quality. The goal

of the division is always to improve water quality on a long-term basis, without causing permanent degradation to the waters of the state.

### **VIII. Permit issuance procedures**

#### **A. Administration**

This general permit is drafted in accordance with and under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and approval from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4.

#### **B. Consideration of comments and permit issuance decisions**

The Division of Water Pollution Control proposes to issue this permit with the described effluent limitations, monitoring and reporting requirements and standard conditions. These conditions are tentative and open to comment. Interested persons are invited to submit comments for consideration, by letter or at the scheduled public hearings. Hearings will be held pursuant to Rule 1200-4-1-.05 on the following dates and locations:

- Monday, July 26, 2004, at 5 p.m. (c.s.t.), in the Ruth Neff Conference Room on the 17th Floor of the L & C Tower, at 4th Ave. and Church Street in downtown Nashville, TN 37243-1534;
- Tuesday, July 27, 2004 at 6:30 p.m. (e.s.t.) in the Large Conference Room on the 1st Floor of TDEC's Environmental Assistance Center, 540 McCallie Avenue, Chattanooga, TN 37402-2013;
- Monday, August 2, 2004, at 6:00 p.m. (c.s.t.) Auditorium in the TDOT Region 4 Office, 300 Benchmark Place at the Interstate 40 Exit 76, Jackson, TN 38301-9693;
- Tuesday, August 3, 2004, at 6:30 p.m. (e.s.t.) in the Goins Auditorium, Pellissippi State Technical Community College, 10915 Hardin Valley Rd., Knoxville, TN 37933-0990;

Comments should be submitted to the following address:

Division of Water Pollution Control  
ATTN: Jim McAdoo  
6th Floor, L & C Annex  
401 Church Street  
Nashville, Tennessee 37243-1534 or  
by e-mail to [Jim.McAdoo@state.tn.us](mailto:Jim.McAdoo@state.tn.us).